EMPIRICAL REPORT

Physician, Heal Thyself: a Qualitative Study of Physician Health Behaviors

Susan George · Janice Hanson · Jeffrey L. Jackson

Received: 18 May 2013 / Accepted: 9 September 2013 / Published online: 24 January 2014 © Academic Psychiatry 2014

Abstract

Objective The authors explore how physicians perceive their own health and barriers to healthcare, as well as what might motivate their behavior.

Methods This qualitative study uses semi-structured interviews of a purposive sampling of physicians, both staff and housestaff, from Walter Reed Army Medical Center and the Medical College of Wisconsin. Transcripts of interviews that probed attitudes and behaviors towards self-care were coded independently by two reviewers using grounded theory qualitative methods.

Results The authors conducted 28 interviews until no new themes emerged. Common barriers to healthcare included inadequate time, fear of consequences, and concern about confidentiality, particularly for stigmatizing diseases identified as mental health problems, chronic pain, substance abuse, and sexual dysfunction. Common behaviors included neglecting one's health, minimizing symptoms, self-diagnosing, and a strong desire not to burden colleagues. Participants were split into those who felt it was fine to self-medicate and others who avoided it. Participants proposed solutions for identified problems, including building time into

schedules for self-care, monitoring electronic medical record access to make providers accountable, obtaining care at other institutions, and working to change the culture around healthcare for physicians.

Conclusions All participants in this study perceived significant unresolved issues pertaining to self-care. Physicians commonly neglect their own care and experience barriers to care, some self-generated and some systems based. The results and suggested interventions provide fodder for future research.

Keywords Physicians · Self-care · Barriers to care

Physicians are healthier [1–3], less likely to smoke [1, 3, 4] and more likely to exercise regularly [3, 5, 6] than the general population. Most previous studies on physician health have focused on health behaviors such as exercise, smoking, and adherence to preventive medicine guidelines [1–16] rather than healthcare. Several studies have examined burnout in physicians, exploring its prevalence and the relationship between health habits, such as regular exercise and burnout, and impact on the quality of care [17–19].

Relatively few studies have examined physician self-care behaviors. Potentially harmful physician health behaviors include going to work when ill, self-prescribing medications, and consulting friends and colleagues rather than seeking formal advice [20–28], though there are no data on the impact of such behaviors. Physicians often do not have a regular doctor and fail to follow preventive medicine guidelines [11, 29–31]. Physicians also have higher rates of depression, suicide, and substance abuse than the general population [1, 32]. Twenty-five percent of Canadian medical residents have

S. George Walter Reed National Military Medical Center-Medicine, Bethesda, MD, USA

J. Hanson University of Colardo Denver School of Medicine, Denver, CO, USA

J. L. Jackson (☑) Medical College of Wisconsin, Milwaukee, WI, USA e-mail: jjackson@mcw.edu



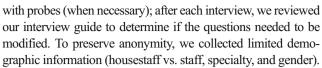
chronic illnesses and 40 % take prescription medications regularly but do not have a regular physician [33]. Even physicians with cancer struggle with tendencies to "self medicate" [34]. Nine percent of Australian physicians thought it acceptable to self-prescribe psychotropic medications, and many were reluctant to seek care from another doctor for psychological complaints [23]. In one study, a majority of Australian urologists had self-prescribed medications, including antibiotics, narcotic and non-narcotic analgesics, and benzodiazepines [35]. Such behaviors could lead to long-term negative consequences.

Previous studies found several barriers to regular healthcare, including embarrassment, lack of identified primary care manager, scheduling issues, and confidentiality [36]. Concerns regarding confidentiality drive many physicians to avoid medical care for stigmatizing illnesses, particularly mental health disorders. However, previous studies have all been based on surveys and therefore not designed to probe for explanations and insights that might arise during open-ended interviews. Our qualitative study's purpose was to explore in greater detail how physicians perceive their own health behavior and barriers to healthcare.

Methods

This is a qualitative study using semi-structured interviews based on a grounded theory approach [37] using purposeful sampling to attain a broad array of opinions [38-40]. We monitored the number and type of clinicians enrolled in the study and targeted recruiting efforts among certain groups (i.e., additional emails to the Department of Surgery). Eligible participants were physicians, both staff and housestaff, from the departments of medicine, anesthesia, surgery, pediatrics, or emergency medicine at two US tertiary healthcare facilities, Walter Reed Army Medical Center (WRAMC) in Bethesda, Maryland, and the Medical College of Wisconsin (MCW) in Milwaukee, Wisconsin. These departments were selected because they all have direct patient-care responsibilities. Both staff and housestaff were interviewed because it was thought that they might differ in beliefs and behaviors. Participants were recruited using e-mail, flyers, and announcements at teaching conferences.

Subjects participated in semi-structured interviews [41]. We developed an interview guide (available upon request) based on a review of the literature on physician health and physician health behaviors. This guide was developed by all three authors, two of whom (JLJ and JH) have experience and formal graduate level training in qualitative methods. Our interview consisted of open-ended questions and probes to promote additional conversation and focused on three major domains: perceptions about personal healthcare, perceptions about providing care to self/family, and perceptions about accessing mental healthcare. We used open-ended questions,



The interviews lasted 45–60 min, took place in private, and were recorded. We obtained approval for this protocol at each study site. Participants received no incentive or compensation and informed consent was obtained before interviews. Interviews were transcribed by an independent transcription agency that removed personal identifying information. Two investigators (SG, JH) independently created an initial code list, which were phrases that served as labels for significant ideas, then met to reach consensus on an initial codebook. We then applied these codes independently to additional transcripts, meeting afterward to review coding and discuss discrepancies. We continued this cycle of coding independently, then meeting, one transcript at a time until both coders were in agreement on the coding scheme. Subsequently transcripts were independently coded with good inter-rater reliability (Spearman's rho, 0.87). We continued to enroll participants until we achieved saturation, when no new themes emerged with continued interviews. We used peer debriefing to ensure saturation, in which emerging themes were discussed during data collection and analysis [42].

Results

A total of 28 interviews were completed, 20 at Walter Reed Army Medical Center and 8 at the Medical College of Wisconsin. Among these, 18 participants were women and 10 men 16 were medicine residents, and 12 were staff physicians. Staff physicians were from medicine (n=6) and emergency medicine (n=2) and one each from general surgery, pediatrics, physical medicine and rehabilitation, and anesthesia. There was no difference in responses between staff and housestaff. Saturation was achieved by the 18th interview at WRAMC; an additional two interviews were conducted beyond saturation to make sure no new themes emerged at this site. At the time the last two interviews were conducted at WRAMC, interviews began at MCW; no new themes emerged from the MCW site.

We identified three major themes: barriers to seeking healthcare (Table 1), physician health behaviors (Table 2), and care for family (Table 3). In addition, a number of possible solutions were proposed.

Barriers

Physicians identified several barriers to seeking care for medical conditions (Table 1) including time, stigma, fear of consequences, and concerns about confidentiality. Time was the most commonly mentioned barrier (54 % of participants). For residents, a common problem was receiving call schedules



Table 1 Theme 1: barriers to healthcare subthemes

Confidentiality

Colleague perceptions

Electronic medical records

Colleague access

Nonclinician access

Sensitive notes are stored differently

Fear of consequences

Ability to manage patients

Employability

Losing credentials

Losing license

Limitations of practice

Ability to deploy overseas (WRAMC only)

Fear disease could be serious

Fear of complications

Fear of publicity

Fear of reprisals

Stigma

Stigmatizing diseases

Chronic pain

Colorectal issues

Gynecological issues

HIV

Malignancy

Mental health

Sexual dysfunction

Sexually transmitted diseases

Substance abuse

Time

Competing priorities

Inflexible schedules

Not burden colleagues

only 1 month in advance, whereas regular doctor appointments often require several months to schedule. Another common barrier was confidentiality (42 % of participants). Both Walter Reed and the Medical College of Wisconsin have an electronic medical record, and this was mentioned as exacerbating privacy concerns.

I think the biggest barrier is time. I mean, I have not had time to eat breakfast or lunch or anything today...time is always going to be the biggest issue with me when it comes to my own health and healthcare.

I think that despite HIPAA rules, physicians tend to talk too much and probably talk about things they should not talk about. I think that plays into some people's concerns about their medical problems getting out... The electronic medical record makes it easy for people to snoop.

Table 2 Theme 2: physician health behaviors

Avoid patient role

Decreased recognition of healthcare needs

Delay care

Have less worry

Minimize symptoms

Wait to see if symptoms resolve

Denial

Neglect health

Physician duty to come to work

For patients

Not burden colleagues

Self-prescribe meds

Self-diagnose

Colleagues

Ask colleagues for meds

Ask colleagues for informal advice

Seek help from mentor

Another aspect of confidentiality for residents was difficulty finding a provider who was not a supervisor or mentor. Another important barrier was fear of consequences (33 % of participants). Respondents were concerned about employability (33 % of participants), ability to manage patients, and concern about publicity or reprisals. Another common theme was the potential for stigma associated with specific diseases, such as mental health problems (50 % of participants), chronic pain (27 % of participants), substance abuse (72 % of participants), sexual dysfunction (30 % of participants), and sexually transmitted diseases (44 % of participants). Stigma led to avoidance of care for some conditions. In situations when care became essential, the experience of stigma made seeking care emotional and difficult.

I went to get care because I did not have an alternative at the time, could I have waited too long? Yes. If I had

Table 3 Theme 3: care for family and friends

Act as intermediary

Ask colleagues for informal advice on their behalf

Help them navigate system

Choose not to treat

Guilt

With negative outcome

If mistake made

Lack of objectivity

Incomplete data

Not area of expertise

Refill standard medications



another condition like a mass in my neck that you are concerned is thyroid cancer the response would be, 'yes, come on in, I will be kind and compassionate and I will take care of you.' We look upon those things differently than we do for the chronic pain patient or the alcoholic ... The attitude is, 'This is their own problem. They did this to themselves.

My wife and I are both physicians and decided to get marital counseling, and it was very difficult to actually get it done. We were waiting outside the person's office, and 50 people walk by that know who you are and they say, 'what are you doing here?'

Physician Behaviors

Physicians discussed multiple behaviors related to their own healthcare (Table 2). They commonly reported neglecting their own health (25 %), minimizing symptoms (17 %), and self-diagnosing (17 %). There were two differing groups, some that were willing to self-prescribe medications and those adamantly opposed to self-prescription. Physicians often sought informal advice from colleagues rather than formal evaluation, though all mentioned risk with this approach. Commonly mentioned negative implications of these behaviors included delays in receiving care and progression of diseases. However, there was a strong sense of not wanting to burden colleagues because of a health concern, which seemed to override their health concerns in most cases. When serious health concerns made it imperative to seek care, they reported guilt at taking time to pursue their own care. One physician related a compelling story of not wanting to leave his partners to have an evaluation for a medical problem, one of several stories of physicians delaying care until their health had worsened.

... people will construct explanations for their symptoms, like I am tired because I am working too hard not because I am depressed ... or I am drinking because I am not getting enough sleep and I need the alcohol to help me sleep ...

Appointments are short, but it is hard to get there, and you don't want to take off work and have someone cover for you. Even if they would be happy to, everyone is busy as it is, and you do not want to burden someone else with your problems.

When you see the extremes of disease processes, you tend to minimize your own symptoms. I think to myself,

'I am taking care of people ten times sicker than I am, I can't be sick.'

Care for Friends and Family

Similar to self-prescription, physicians fell into two broad groups, those willing (43 %) and those unwilling to provide care for family or friends (Table 3). Most physicians (87 %) reported a willingness to act as intermediaries, arranging care with colleagues and refilling standard medications. Some felt comfortable with providing care for family or friends. Those declining to provide such care reported several reasons for this decision including lack of objectivity needed to make good clinical decisions, while others feared not being able to do a thorough history/physical/testing. Ultimately, all of these reasons for not providing care to loved ones were related to a concern about guilt if there was a bad outcome.

You are not objective because it is a family member ... I think you run the risk of not seeing them as patients, and you run the risk of somehow mistreating them and causing a bad outcome ...

I am happy to think about diagnosis or help family members verbalize their complaints, but I absolutely do not want to play the role in coming up with diagnosis and treating them. They should see their own provider and specialist.

I will try to facilitate appointments for my wife or for my kids or I can make connections, and yes even work the system for my family.

Proposed Solutions

A number of potential solutions were suggested, including building time into the schedule for personal matters, such as medical care, and making this time fixed several months in advance. Other solutions included greater restriction on access to the electronic medical record, monitoring access to such records, and making individuals accountable for such access. Providing opportunities for care outside their place of employment was also mentioned as a possible solution, as well as promoting self-care at orientation and leaders modeling these behaviors. Overall, physicians wanted there to be a change in the culture of medicine, such that there are acknowledgements of the importance of taking care of oneself, expectations of some illness during their career, and increased awareness about stigmatized diseases among providers, particularly mental health.



Perhaps if there was a way to schedule time for yourself, maybe block off a certain part of your schedule where you can make sure you can receive care.

So I think there have to be some special privileges accorded in order to reduce barriers, whether it is the last appointment of the day or being seen in a different setting ... so you could choose a site, which was not where you worked.

... Those in charge of residents and medical students should understand that because of stress and long hours, a significant number of people are going to have depression, anxiety, etc. ... make resources available for people in a confidential manner.

Discussion

We found that there were a number of common themes among physicians regarding healthcare for themselves and their families. The most important barriers were time constraints, confidentiality, fear of consequences and stigmatization from certain diseases. Physicians often sought to minimize and deny problems and avoid the patient role, as well as neglected their own health. They self-diagnosed and self-prescribed and often informally obtained medical advice from colleagues. Most reported being willing to refill standard medications for family and friends, but many chose to avoid this role and out of concern of lack of objectivity and incomplete data collection, as well as guilt about possible adverse outcomes. Proposed solutions included cultivating a culture that gives clinicians "permission" to be sick and to assume the patient role and modifying electronic medical records to restrict access or at least monitoring access and holding those accessing the information accountable.

The results of our study are similar to those of a qualitative study performed among physicians with a self-reported illness lasting at least 1 month by McKevitt and Morgan [25]. These physicians reported significant stigma surrounding mental illnesses and guilt at succumbing to a physical illness and potentially burdening partners. Physicians felt that they "may not" get sick, because of competition among peers and fears surrounding career advancement. Furthermore, they reported minimizing symptoms, engaging in illness denial, having confidentiality concerns, and delaying seeking appropriate care [43]. Our study elaborates on these themes. Physicians interviewed believed that the electronic medical record worsened confidentiality concerns and listed several other stigmatized illnesses, including those relating to sexual function and sexually transmitted diseases. There is literature on the importance of making care outside of their place of employment available [44–46].

We identified additional solutions, including promoting culture change, restricting EMR access and having regularly scheduled, fixed time in the schedule for obtaining medical care.

The health behaviors and barriers endorsed by the house staff were similar to those verbalized by attendings. However, resident physicians did seem less able to navigate around some of the barriers than attendings. For example, resident physicians were particularly vulnerable to the fear of letting down their peers and often had a more difficult time finding a primary care provider who was not a supervisor. In addition, residents looked to program directors to establish the culture of the residency in regard to physicians' self-care. While all residents in this study were practicing within duty hour restrictions, they still faced both time and "cultural" challenges when accessing healthcare for themselves. The responses among physicians were also similar between two geographically and systemically diverse sites. Although physicians in the military system face stressors of deployments in support of combat operations, they seemed to exhibit behaviors in response to their job stressors that were similar to their civilian counterparts with regard to self care.

There are a number of personality characteristics among physicians that might contribute to the behaviors we found. Gabbard suggests that "doubt, guilt feelings, and an exaggerated sense of responsibility form a triad of compulsiveness that characterizes the physician's psychological makeup" [47]. It may not be surprising then that physicians are more likely than other groups to work through illness [25] and neglect their own health. Unfortunately, stress continues to be high for both trainees and practicing physicians [48–52] and may be rising [53]. Moreover, there is limited evidence that neglecting their own health may result in worse patient care [17, 51, 54].

We took several steps to increase the validity of our results. We sought credibility by gathering detailed evidence in the form of interviews, performed by a researcher skilled in interview methods. We utilized multiple investigators in analyzing the transcripts, as well as peer debriefing to establish saturation, to increase the dependability of the results. We also collected interviews from both staff and house-staff, because it is possible that the two would have differing views on the subject. We also conducted interviews at two institutions to increase the diversity of our sample, heightening the transferability of our findings to other medical settings. However, our study does have several limitations. First, it is impossible to tell from qualitative methods the relative importance of the various factors, such as barriers, to provider behaviors. It is also not possible to generalize the percentages that some items were mentioned by participants to the general population. Just because a certain percentage of participants reported a specific barrier does not mean that the same percentage of non-study personnel are experiencing this issue. Because we collected limited demographic data, we are unable to draw conclusions about how health behaviors vary by race, gender, or age. In addition, although we were able to have equal proportions of



trainees and staff, we had more interviewees among members from medicine than other fields. It is possible that physicians in surgical fields may differ. Also, we have a limited number of participants, though we did conduct interviews until no new themes emerged and there was no difference in themes that emerged from staff or residents from two geographically distant institutions. The number of interviews we performed is typical for qualitative research, and we performed eight additional interviews to ensure saturation. In addition, it is impossible to know how well the qualitative information we obtained mirrors actual behavior. Finally, participants "self-selected" to be involved. It is possible that this would promote individuals with stronger feelings on the topic to come forth to participate, thus potentially distorting the magnitude of the issues.

We conclude that there are a number of potentially malleable barriers to healthcare for healthcare providers. Time, stigma, and fear of consequences and confidentiality are potentially fixable problems. Time could be allocated and confidentially ensured. Physicians are not unique; they prefer to avoid the patient role, delay care, and minimize their symptoms. In addition, physicians also tend to self-diagnose their problems and seek informal advice from colleagues. Physicians often expressed discomfort with providing care to family members, worrying about lack of impartiality, difficulty with the thoroughness of the evaluation and concern about bad outcomes. Some aspects of medical practice are changing. For example, fewer physicians run their own practices; instead, they work for hospitals or other healthcare organizations. There is no logical reason they cannot take time off to care for themselves once they move beyond residency. The focus of future interventions could be on the emotional side; doctors need to realize that to be there for their patients and their peers, they need to take care of themselves (and in a timely way). The stigma associated with certain medical conditions is a dark side of the profession that is generally ignored. The increasing penetrance of EMRs may be particularly problematic for physicians' self-care because privacy concerns were mentioned as a significant concern. More thought needs to be given in the implementation of EMRs to protect physicians' as well as patients' privacy. Our participants proposed a n number of solutions, including cultivating a culture that allows physicians to assume the sick role. Additional steps that could be taken include education in medical school and residency training about the importance of physician health, which would provide the much needed emphasis at the institutional level about the importance of each individual's health and healthcare. The emergence of self-awareness training in a number of training programs that includes self-reflection and the need to care for oneself are positive steps and evidence that this is happening in a limited manner [51, 55-57]. Incremental changes like building in regular, scheduled time for self-care are easy to envision. A realistic step is something as simple as providing staff and housestaff with 2 h/month for health-related activity that could be scheduled in advance. These types of changes would be welcome improvements to most physicians.

Implications for Educators

- · House staff often neglect their own health needs
- Common reasons for this include inadequate time, minimizing symptoms, and not wanting to be a burden to colleagues
- Proposed solutions include building time into schedules for health care, working to change the culture of care in teaching institutions and strictly limiting access to electronic medical records

Implications for Academic Leaders

- Staff and house staff engage in unhealthy behaviors including selfdiagnosis, minimizing symptoms and seeking informal advice from colleagues
- Several diseases are particularly stigmatizing and may cause faculty and house staff to avoid seeking care
- Despite safeguards, both staff and house staff expressed concern about the privacy of their own electronic health records

References

- Bazargan M, Makar M, Bazargan-Hejazi S, Ani C, Wolf KE. Preventive, lifestyle, and personal health behaviors among physicians. Acad Psychiatr. 2009;33(4):289–95.
- Abuissa H, Lavie C, Spertus J, O'Keefe Jr J. Personal health habits of American cardiologists. Am J Cardiol. 2006;97(7):1093–6.
- Frank E, Segura C. Health practices of Canadian physicians. Can Fam Physician. 2009;55(8):810–1.
- Frank E, Brogan DJ, Mokdad AH, Simoes EJ, Kahn HS, Greenberg RS. Health-related behaviors of women physicians vs other women in the United States. Arch Intern Med. 1998:158(4):342-8
- Frank E, Bhat SK, Elon L. Exercise counseling and personal exercise habits of US women physicians. J Am Med Wom Assoc. 2003;58(3): 178–84.
- Howe M, Leidel A, Krishnan SM, Weber A, Rubenfire M, Jackson EA. Patient-related diet and exercise counseling: do providers' own lifestyle habits matter? Prev Cardiol. 2010;13(4):180–5.
- Abramson S, Stein J, Schaufele M, Frates E, Rogan S. Personal exercise habits and counseling practices of primary care physicians: a national survey. Clin J Sport Med. 2000;10(1):40–8.
- Cornuz J, Ghali WA, Di CD, Pecoud A, Paccaud F. Physicians' attitudes towards prevention: importance of intervention-specific barriers and physicians' health habits. Fam Pract. 2000;17(6):535–40.
- Hull SK, DiLalla LF, Dorsey JK. Prevalence of health-related behaviors among physicians and medical trainees. Acad Psychiatry. 2008;32(1):31–8.
- Hung OY, Keenan NL, Fang J. Physicians' health habits are associated with lifestyle counseling for hypertensive patients. Am J Hypertens. 2013;26(2):201–8.
- Kahn KL, Goldberg RJ, DeCosimo D, Dalen JE. Health maintenance activities of physicians and nonphysicians. Arch Intern Med. 1988;148(11):2433–6.
- McNemey JP, Andes S, Blackwell DL. Self-reported health behaviors of osteopathic physicians. J Am Osteopath Assoc. 2007;107(12):537–46.



- Rosvold EO, Hjartaker A, Bjertness E, Lund E. Breast selfexamination and cervical cancer testing among Norwegian female physicians. A nation-wide comparative study. Soc Sci Med. 2001;52(2):249–58.
- Wells KB, Lewis CE, Leake B, Ware Jr JE. Do physicians preach what they practice? A study of physicians' health habits and counseling practices. JAMA. 1984;252(20):2846–8.
- Zhu DQ, Norman IJ, While AE. The relationship between doctors' and nurses' own weight status and their weight management practices: a systematic review. Obes Rev. 2011;12(6):459–69.
- Janes RD, Wilson DM, Singer J. Physicians' and Nurses' Own Health Practices: A survey. Can Fam Physician. 1992;38:277–83.
- Campbell Jr DA. Physician wellness and patient safety. Ann Surg. 2010;251(6):1001–2.
- Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. Acad Med. 2006;81(4):354–73.
- Shanafelt TD, Oreskovich MR, Dyrbye LN, Satele DV, Hanks JB, Sloan JA, et al. Avoiding burnout: the personal health habits and wellness practices of US surgeons. Ann Surg. 2012;255(4):625–33.
- 20. Baldwin PJ, Dodd M, Wrate RM. Young doctors' health—II. Health and health behaviour. Soc Sci Med. 1997;45(1):41–4.
- Chen JY, Tse EY, Lam TP, Li DK, Chao DV, Kwan CW. Doctors' personal health care choices: a cross-sectional survey in a mixed public/private setting. BMC Public Health. 2008;8:183.
- Clarke J, O'Sullivan Y, Maguire N. A study of self-care among Irish doctors. Ir Med J. 1998;91(5):175–6.
- Davidson SK, Schattner PL. Doctors' health-seeking behaviour: a questionnaire survey. Med J Aust. 2003;179(6):302–5.
- Forsythe M, Calnan M, Wall B. Doctors as patients: postal survey examining consultants and general practitioners adherence to guidelines. BMJ. 1999;319(7210):605–8.
- McKevitt C, Morgan M, Dundas R, Holland WW. Sickness absence and 'working through' illness: a comparison of two professional groups. J Public Health Med. 1997;19(3):295–300.
- Rosvold EO, Bjertness E. Illness behaviour among Norwegian physicians. Scand J Public Health. 2002;30(2):125–32.
- Schneider M, Bouvier GM, Goehring C, Kunzi B, Bovier PA. Personal use of medical care and drugs among Swiss primary care physicians. Swiss Med Wkly. 2007;137(7–8):121–6.
- Toyry S, Rasanen K, Kujala S, Aarimaa M, Juntunen J, Kalimo R, et al. Self-reported health, illness, and self-care among finnish physicians: a national survey. Arch Fam Med. 2000;9(10):1079–85.
- Gross CP, Mead LA, Ford DE, Klag MJ. Physician, heal thyself? Regular source of care and use of preventive health services among physicians. Arch Intern Med. 2000;160(21):3209–14.
- Kay MP, Mitchell GK, Del Mar CB. Doctors do not adequately look after their own physical health. Med J Aust. 2004;181(7):368–70.
- McCall L, Maher T, Piterman L. Preventive health behaviour among general practitioners in Victoria. Aust Fam Physician. 1999;28(8):854–7.
- 32. Miller NM, McGowen RK. The painful truth: physicians are not invincible. South Med J. 2000;93(10):966–73.
- Campbell S, Delva D. Physician do not heal thyself. Survey of personal health practices among medical residents. Can Fam Physician. 2003;49:1121–7.
- 34. Fromme EK, Hebert RS, Carrese JA. Self-doctoring: a qualitative study of physicians with cancer. J Fam Pract. 2004;53(4):299–306.
- 35. Wines AP, Khadra MH, Wines RD. Surgeon, don't heal thyself: a study of the health of Australasian urologists. Aust N Z J Surg. 1998;68(11):778–81.

- Kay M, Mitchell G, Clavarino A, Doust J. Doctors as patients: a systematic review of doctors' health access and the barriers they experience. Br J Gen Pract. 2008;58(552):501–8.
- Sbaraini A, Carter SM, Evans RW, Blinkhorn A. How to do a grounded theory study: a worked example of a study of dental practices. BMC Med Res Methodol. 2011;11:128.
- Leininger MM. Qualitative Research Methods in Nursing. Orlando: Grune and Stratton; 1985.
- Liamputtong P, Ezzy D. Qualitative research methods. Melbourne: Oxford University Press; 2005.
- Taylor SJ, Bogdan R. Introduction to qualitative research methods: the search for meanings. New York: Wiley; 1984.
- Dicicco-Bloom B, Crabtree BF. The qualitative research interview. Med Educ. 2006;40(4):314–21.
- Hanson JL, Balmer DF, Giardino AP. Qualitative research methods for medical educators. Acad Pediatr. 2011;11(5):375–86.
- McKevitt C, Morgan M. Illness doesn't belong to us. J R Soc Med. 1997;90(9):491–5.
- Dunn LB, Moutier C, Green Hammond KA, Lehrmann J, Roberts LW. Personal health care of residents: preferences for care outside of the training institution. Acad Psychiatry. 2008;32(1): 20–30.
- 45. Roberts LW, Warner TD, Lyketsos C, Frank E, Ganzini L, Carter D. Perceptions of academic vulnerability associated with personal illness: a study of 1,027 students at nine medical schools. Collaborative Research Group on Medical Student Health. Compr Psychiatry. 2001;42(1):1–15.
- Rosenthal JM, Okie S. White coat, mood indigo—depression in medical school. N Engl J Med. 2005;353(11):1085–8.
- Gabbard GO. The role of compulsiveness in the normal physician. JAMA. 1985;254(20):2926–9.
- Calnan M, Wainwright D, Forsythe M, Wall B, Almond S. Mental health and stress in the workplace: the case of general practice in the UK. Soc Sci Med. 2001;52(4):499–507.
- Collier VU, McCue JD, Markus A, Smith L. Stress in medical residency: status quo after a decade of reform? Ann Intern Med. 2002;136(5):384–90.
- Mazie B. Job stress, psychological health, and social support of family practice residents. J Med Educ. 1985;60(12):935–41.
- 51. Novack DH, Suchman AL, Clark W, Epstein RM, Najberg E, Kaplan C. Calibrating the physician. Personal awareness and effective patient care. Working Group on Promoting Physician Personal Awareness, American Academy on Physician and Patient. JAMA. 1997;278(6): 502–9.
- Toews JA, Lockyer JM, Dobson DJ, Simpson E, Brownell AK, Brenneis F, et al. Analysis of stress levels among medical students, residents, and graduate students at four Canadian schools of medicine. Acad Med. 1997;72(11):997–1002.
- Jaques H. Nearly half of UK young doctors say stress levels rose last year. BMJ. 2013;346:f2826.
- 54. Rosvold EO, Bjertness E. Physicians who do not take sick leave: hazardous heroes? Scand J Public Health. 2001;29(1):71–5.
- Johnson AH, Brock CD, Hamadeh G, Stock R. The current status of Balint groups in US family practice residencies: a 10-year follow-up study, 1990–2000. Fam Med. 2001;33(9):672–7.
- Stein HF. Reframing Balint: thoughts on family medicine departmental Balint groups. Fam Med. 2003;35(4):289–90.
- Zwack J, Schweitzer J. If every fifth physician is affected by burnout, what about the other four? Resilience strategies of experienced physicians. Acad Med. 2013;88(3):382–9.

